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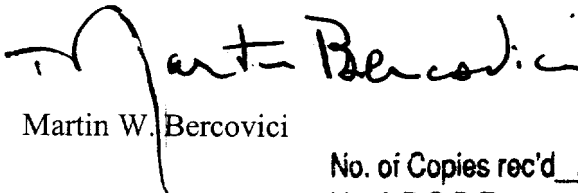
Re: *Development of Operational and Technical and Spectrum Requirements
for meeting Federal, State and Local Public Safety Communication
Requirements for the Year 2010, WT Docket 96-86 (4th Notice of Proposed
Rulemaking) Resubmission of Comments*

Dear Secretary Salas:

Associated herewith, please find comments of the American Association of State Highway and Transportation Officials, et al., in response to the Commission's 4th Notice of Proposal Rulemaking concerning the operational and technical rules to implement the 700 MHz band public safety allocation. These comments are identical to those filed by Forestry Conservation Communications Association et al., on September 25th except that the American Association of State Highway and Transportation Officials (AASHTO) has joined in the Comments. AASHTO was not able to complete its processes for approval in time to join the filing on September 25, 2000.

We respectfully request the Commission accept the resubmitted comments to show the participation of AASHTO in this proceeding. Inasmuch as the substance of the comments has not changed, no party can be prejudiced by acceptance of this filing.

Respectfully Submitted,


Martin W. Bercovici

Enclosure

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**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
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**FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY**

IN THE MATTER OF)

The Development of Operational,)
Technical and Spectrum Requirements)
For Meeting Federal, State and Local)
Public Safety Agency Communication)
Requirements Through the Year 2010)

WT DOCKET No. 96-86

FOURTH NOTICE OF PROPOSED RULEMAKING

Establishment of Rules and Requirements)
For Priority Access Service)

TO: THE COMMISSION

**JOINT COMMENTS
OF
AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION
OFFICIALS, FORESTRY CONSERVATION COMMUNICATIONS
ASSOCIATION, INTERNATIONAL ASSOCIATION OF FIRE CHIEFS, INC.,
INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES,
INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION, AND
NATIONAL ASSOCIATION OF STATE FORESTERS**

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SEPTEMBER 29, 2000

TABLE OF CONTENTS

SUMMARY.....	i
I. INTRODUCTION.....	2
II. GENERAL OVERVIEW	4
III. ISSUES RAISED IN THE 4 TH NOTICE OF PROPOSED RULEMAKING.....	7
A. MANDATORY TRUNKING	7
B. PERMISSIVE TRUNKING.....	8
C. GUARD CHANNELS	8
D. ADMINISTRATIVE OVERSIGHT	8
E. STATE INTEROPERABILITY EXECUTIVE COMMITTEES.....	8
F. SUBSCRIBER EQUIPMENT LICENSING.....	9
G. RPC OVERSIGHT OF INTEROPERABILITY INFRASTRUCTURE	9
H. MEMORANDA OF UNDERSTANDING AND SHARING AGREEMENTS	10
I. CHANNEL DESIGNATION.....	10
J. DISPLAY LABELING (NOMENCLATURE).....	10
K. ACCESS PRIORITY	10
L. CALLING CHANNELS.....	11
M. NARROWBAND DIGITAL VOICE STANDARDS FOR INTEROPERABILITY CHANNEL	11
N. CHANNEL EFFICIENCY STANDARDS-NARROWBAND CHANNELS	14
O. NARROWBAND LOW SPEED DATA TRANSMISSION STANDARD AND CHANNEL RESERVATION	14
P. ENCRYPTION.....	15
Q. RECEIVER STANDARDS AND INTERFERENCE.....	15
R. FEDERAL USE OF INTEROPERABILITY SPECTRUM	15
S. PRE-COORDINATION DATABASE.....	16

SUMMARY

Public Safety Representatives, speaking for their constituencies who provide emergency medical services, fire prevention and suppression, forestry conservation, management and law enforcement, and transportation infrastructure management and safety urge the Federal Communications Commission to adopt technical and operational rules to implement the use of the 700 MHz band public safety allocation from the perspective of assuring spectrum efficient, technologically advanced and economical communications systems. The latter is of critical concern since the 700 MHz allocation provides not only the spectrum resources for public safety agencies to grow their communication systems, but also the unprecedented opportunity to establish a common platform for public safety agencies to communicate with one another in mutual aid as well as routine operational situations. Consequently, the standard chosen by the Commission for interoperability must assure a competitive equipment marketplace in order that the volunteer and rural public safety agencies, in particular, can participate.

The criteria set by the Commission for utilization of the band, namely digital operation on 6.25 kHz channels, based upon an ANSI-certified standard, pushed the envelope in terms of available equipment for near term implantation. The Commission is facing a critical choice in terms of where to comprise with regard to these criteria in the establishment of the technical and operational rules for the use of the 700 MHz spectrum.

The 4th Notice of Proposed Rulemaking also addresses many managerial and technical issues. Underlying the position of the Public Safety Representatives with regard to the operational and technical issues are the considerations of achieving interoperability without burdening the radio systems, and avoiding micro-managing the utilization of the new spectrum by the states.

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

IN THE MATTER OF)	
)	
The Development of Operational,)	
Technical and Spectrum Requirements)	
For Meeting Federal, State and Local)	WT DOCKET No. 96-86
Public Safety Agency Communication)	
Requirements Through the Year 2010)	FOURTH NOTICE OF PROPOSED RULEMAKING
)	
Establishment of Rules and Requirements)	
For Priority Access Service)	

TO: THE COMMISSION

**JOINT COMMENTS
OF
AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION
OFFICIALS, FORESTRY CONSERVATION COMMUNICATIONS ASSOCIATION,
INTERNATIONAL ASSOCIATION OF FIRE CHIEFS, INC.,
INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES,
INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION, AND
NATIONAL ASSOCIATION OF STATE FORESTERS**

The American Association of State Highway and Transportation Officials ("AASHTO"), the Forestry Conservation Communications Association ("FCCA"), the International Association of Fire Chiefs, Inc. ("IAFC"), the International Association of Fish and Wildlife Agencies ("IAFWA"), the International Municipal Signal Association ("IMSA") and the National Association of Foresters ("NASF") (collectively referred to herein as "Public Safety Representatives"), respectively submit their comments in response to the Fourth Notice of Proposal Rule Making ("4th NPRM") issued by the Commission with regard to the development

of operational and technical rules to implement the public safety 700 MHz band frequency allocation.¹

I. INTRODUCTION

AASHTO is the national association of the state departments of highways and transportation in the 50 states, the District of Columbia and Puerto Rico. Its scope includes all five principal transportation modes, and its major purpose is to foster the development, operation and maintenance of an integrated national transportation system. AASHTO serves as the Commission's certified frequency coordinator for the Highway Maintenance Radio Service and also the public safety frequency pool.

FCCA is comprised of individuals from IAWFA and NASF (its parent organizations) and telecommunications managers from forestry conservation, conservation law enforcement and parks and recreation agencies throughout the United States. FCC represents its members in proceedings at the Commission and other communications matters.

IAFC is a voluntary, professional membership society. Its membership, comprised of approximately 12,000 senior Fire Service officers, is dedicated to the protection of life and property throughout the United States and abroad. IAFC is the major national professional association representing the interests of senior management in the Fire Service. The Fire Service is the largest provider of emergency medical service ("EMS") in the United States.

IAFWA consists of fishery and wildlife administrators and managers from states throughout the nation, as well as from foreign countries. State fish and wildlife agencies are

¹ 65 Fed. Reg. 51788 (Aug. 25, 2000). Public Safety Representatives herewith resubmit the Comments filed September 25, 2000 by FCCA, et al., to reflect the participation in these Comments of AASHTO. AASHTO was not able to clear these Comments through its processes in time to join the filing on September 25, 2000.

responsible for monitoring fish and wildlife species abundance, distribution and health within the state. In many instances, fish and wildlife agencies also are responsible for the enforcement of conservation and environmental laws. Enforcement officers have a vital need for reliable communications as a matter of basic employee safety because, quite often, they are confronting individuals with loaded weapons.

IMSA is a non-profit organization dedicated to the development and use of electrical signaling and communications systems in the furtherance of public safety. IMSA members include representatives of federal, state, county, city, township and borough governmental bodies, and representatives of governmental bodies from foreign nations. Organized in 1896, IMSA is the oldest organization in the world dedicated to the activities pertaining to electrical engineering, including the Public Safety use of radio technology. IMSA and IAFC are recognized as the frequency coordinating committee for the Fire Radio Service and the Emergency Medical Radio Service ("EMRS"); and, in conjunction with the Personal Communications Industry Association ("PCIA"), IMSA and IAFC constitute the recognized coordinating committee for the Special Emergency Radio Service ("SERS"), and IMSA and IAFC also are recognized to coordinate the public safety frequency pool.

NASF consists of state forestry representatives from every state. State foresters are responsible for wildfire suppression and detection within their jurisdictional boundaries. Many state forestry agencies also are responsible for reforestation and for activities on federal forestland. Reliable radio communications are essential for individuals functioning in the extremely dangerous environment associated with wildfire suppression and detection activities.

Public Safety Representatives have actively participated in the earlier phases of this proceeding. In addition, the Public Safety Representatives have been active in the work of

National Coordination Committee (“NCC”), as well as in the work of its predecessor Public Safety Wireless Advisory Committee (“PSWAC”), and also in the activities of the National Public Safety Telecommunications Council (“NPSTC”). The Public Safety Representatives submit these comments on behalf of their tens of thousand of constituents who are responsible for the delivery of emergency medical services, fire prevention and suppression, forestry conservation, management and law enforcement, and transportation infrastructure management and safety. Collectively, the Public Safety Representatives account for a very significant share, if not majority, of the public safety user community in the United States.

II. GENERAL OVERVIEW

This phase of the public safety 700 MHz band proceeding represents a critical juncture in providing that the public safety services will have efficient and effective communications capabilities and systems through the year 2010 and beyond. This phase will provide the framework both for relieving spectrum congestion and also for establishing a common platform for communication between and among host public safety agencies within a jurisdiction and those who may enter that jurisdiction to aid in fire fighting, rescue, law enforcement, emergency incident response and other public safety functions. Whether the opportunities presented will be available to -- and utilized by -- the public safety communities broadly, or only by those in major metropolitan areas in greatest need of additional channel capacity, will be determined by the choices made in this phase of the proceeding.

Throughout this proceeding, the Public Safety Representatives have advocated that the Commission approach implementation of the 700 MHz spectrum allocation to the Public Safety services from the perspective of assuring spectrum efficient, technologically advanced and economical communications systems. The Commission has addressed the spectrum efficient and

technologically advanced criteria by requiring 6.25 kHz bandwidth of operation and digital emissions. The Commission has not, however, addressed the impact of the standards in assuring that the equipment made available for use in the band is economical. While the Public Safety Representatives understand that the Commission cannot, by regulation, assure economical pricing, the Commission can, and must, assure the opportunity for competitive supply. Thereafter, as demonstrated by both the principles of economics and experience, the marketplace will assure reasonable and competitive equipment prices.

The economics of 700 MHz band implementation is particularly critical to the Fire, EMS and Forestry services. Consequently, assuring economical equipment supply is critical to achieving the objective of both Congress and the Commission in making the 700 MHz band available to the Public Safety communities, i.e. maximizing the use of the band among the broadest possible sector of public safety users in order to assure interoperability between and among public safety agencies.

While every level of state and local government is affected by budget constraints, the cost of radio communications systems is a particularly acute issue for the Fire, EMS and Forestry services due to the fact that a large percentage of these users are rural and/or volunteer in nature. For example, 73% -- 22,700 -- of the 31,000 fire departments in the United States are volunteer departments. Such volunteer departments largely rely upon contributions and other private funding sources. Most are rural, and some serve suburban areas, possibly in combination with paid fire departments. These volunteer departments serve the small towns, townships and counties, and in particular serve rural areas which bear much of the critical infrastructure of the United States, i.e., dams, railroad right-of-ways, pipelines and electric utility structures which often generate a multi-jurisdiction emergency response when an incident occurs. Similarly, a

large majority of emergency medical service agencies are volunteer in nature, either in combination with fire departments or freestanding rescue squads. The forestry service also is substantially rural, and in some cases is volunteer, in nature, the latter represented by the Nature Conservancies. As evidenced by the fires in the West this past summer, forest fires generate a high level of “mutual aid” response, from regional and distant sources, as well as National Guard and federal government assistance.

The primary debate, both within the Commission and without, concerning the 700 MHz implementation concerns the digital voice standard for interoperability.² This has evolved into a debate between the Project 25/Phase I standard adopted by the Telecommunications Industry Association (“TIA”), a 10+ year old program entailing 12.5 kHz bandwidth of operation, and TETRA, the European Telecommunications Standards Institute (“ETSI”) equipment standard which employs a 4-slot Time Division Multiple Access (“TDMA”) Methodology in which 4 voice channels are realized within a 25 kHz bandwidth. TETRA is represented as complying with the FCC’s 6.25 kHz bandwidth per voice channel standard for operation in the 700 MHz public safety band.

The Public Safety Representatives have no vested interest in either standard. Rather, the sole objective of the Public Safety Representatives is in the adoption of technical and operational standards which promote the development of economic, spectrum efficient and technologically advanced telecommunications services. From the standpoint of economical equipment supply,³ certain of the Public Safety Representatives previously have expressed concern to the Commission regarding the Project 25 standard due to the apparent lack of a fully competitive marketplace in the

² 4th NPRM at ¶¶41-49.

³ The spectrum efficiency issues is addressed *infra* at §III. M. of these Comments. There does not appear to be an issue related to whether one or the other systems would provide greater technological capability.

United States for Project 25 equipment.⁴ On the otherhand, TETRA is widely available from numerous manufacturers in Europe, most of which also serve the United States market. The significance to the user community, and particularly to the volunteer and rural public safety agencies, is the significant price differential between Project 25 equipment and TETRA equipment. A fully featured Project 25 subscriber radio ranges from \$3-4,000 compared with \$800-2,000 for a comparable TETRA unit. To equip a small public safety agency with the several mobile and portable units which would be required for full interoperability, the price difference between Project 25 and TETRA equipment is no small matter either to public agencies which rely on governmental appropriations or to volunteer agencies whose primary means of fundraising is through bingo games and bake sales. Consequently, Commission decisions in this proceeding will affect the level of implementation of 700 MHz band systems, and therefore the degree of interoperability achieved, by the volunteer and rural emergency medical, fire and forestry agencies.

III. ISSUES RAISED IN THE 4TH NOTICE OF PROPOSED RULEMAKING

The Public Safety Representatives address the issues raised in the 4th Notice of Proposed Rulemaking in the order presented. The most critical issue, as indicated above, concerns the narrowband digital voice standard for interoperability channels, discussed herein at III.M.

A. Mandatory Trunking: Public Safety Representatives concur with the FCC's proposal that trunking on the interoperability channels should not be required. As stated in the 4th NPRM, critical interoperability functions will occur on a mobile - to mobile basis for incident response. Moreover, trunking requires communications system infrastructure, and said infrastructure generally will not be found in rural areas.

⁴ See Ex Parte Communication of American Association of State Highway and Transportation Officials, et. al., WT Docket 96-86 (Oct. 8, 1999) and Reply to Response (Nov. 19, 1999).

B. Permissive Trunking: Whereas the NCC recommended that trunking be permitted on ten of the interoperability channels on a “secondary” basis, as noted by the Commission the IAFC expressed opposition to this proposal due to concern about the ability to revert to conventional use in an emergency situation. The other Public Safety Representatives concur with the IAFC position. Indeed, the basic need for and use of trunking on interoperability channels is open to question. Trunking is utilized for routine communications. Those needs can -- and should -- be accommodated on the General Use channels. In the event the Commission adopts the proposal to allow trunking on a limited number of the interoperability channels, the Public Safety Representatives submit that monitoring on a 24 hour per day/7 days per week basis is essential in order to terminate the trunking function and revert to conventional operation when field conditions so mandate.

C. Guard Channels: The Public Safety Representatives concur that the band plan should provide for aggregation of four 6.25 kHz channels for 25 kHz channel operation. It is believed the manufacturers are in the best position to recommend how to accommodate these needs, and to reconcile these needs with those for guard channels.

D. Administrative Oversight: The Commission proposes that administration of the interoperability channels should occur at the state level. Public Safety Representatives concur. In addition, there may be a need for harmonization through the Regional Planning Committees (“RPCs”) with regard to multi-state regions and for operational plans in the vicinity of state borders.

E. State Interoperability Executive Committees: Public Safety Representatives concur with the Commission’s assessment that there is no need to dictate the management structure for administration of the interoperability channels, and particularly to require the states to form “state interoperability executive committees”. When a need for 700 MHz band operation exists within the state, a state inherently has the mechanism and the process for determining the manner of

administration of the interoperability channels. It is further submitted that the concern expressed about the failure of a state to oversee the development of an interoperability plan is not well founded. The members of Public Safety Representatives principally constitute state and local government agencies or their managers, and there is no doubt that the states will provide a planning mechanism when and where a need exists. One option is for a state to defer to the RPC. In the remote event that should not occur, a state agency which desires but lacks the process for securing access to the band, or the responsible RPC, can bring this matter to the attention of the Commission for instructions, and perhaps recognition for the affected state agency to be recognized as the appropriate party for administration within that state. Particularly considering that the timing of interest in moving toward 700 MHz band implementation likely will vary based upon the size of the population centers within the states, and also considering the delay in access to the band due to the need for television broadcast stations to migrate and the need for equipment to be developed and become commercially available, providing an automatic default to RPC oversight could be fraught with the potential for opportunism.

F. **Subscriber Equipment Licensing:** The Public Safety Representatives concur with the Commission's proposal for blanket licensing for mobile operation. The states responsible for administration of the interoperability channels should be in a position to detect and to initiate enforcement action, if necessary, to address unlicensed operation. The requirement for individual mobile station licensing in and of itself will not prohibit unlawful operation, if an individual or entity is so inclined. The Commission provides blanket licensing of mobile units operating within licensed systems in many other radio services, and these provision operate effectively.

G. **RPC Oversight of Interoperability Infrastructure:** The Commission solicits comments on whether the RPCs should review the technical parameters of applications for interoperability channels. Public Safety Representatives support the RPCs reviewing state or state agency

applications for interoperability channels, and providing comments to the Commission and to the frequency coordinators. The RPCs, however, should not be given substantive authority with regard to the applications themselves, since that would undermine the responsibility accorded to the states for administration.

H. Memoranda of Understanding and Sharing Agreements: Public Safety Representatives concur with the Commission's position that the user approval process need not be prescribed by the FCC's rules. The Memoranda of Understanding developed by the NCC may be found to be a useful tool for many of the states, as the entities responsible for administration; however, the states should be accorded flexibility with regard to discharge of their functions.

I. Channel Designation: Channel numbering and the calling channels must be uniform nationwide. Otherwise, Public Safety Representatives concur with the Commission's tentative conclusion to refrain from adoption of a table of channel assignments for use of the interoperability channels. The NCC recommendation is available as a resource to the states. As the Commission notes, however, prescription by the Commission will limit flexibility, and would impose a requirement that states seeking to deviate seek a rule waiver or a change in the regulations through a petition for a rulemaking, the latter of which could be a multi-year process. Such micro-management would deprive the states of the flexibility needed to address local situations, and would undermine the notion that the states are responsible for administration of the interoperability channels.

J. Display Labeling (Nomenclature): Public Safety Representatives believe that mobile radio units should display channel numbers, in order to facilitate communication between and among different agencies. Display of other information should be at the user's option.

K. Access Priority: The NCC recommendations provide a good starting point for determination of access priority. However, to the extent the states are responsible for administration

of the interoperability channels, they should have final responsibility for determining access priority. The Commission further appropriately notes the difficulty in establishing access priority based upon type of emergency, considering the differing levels of government and circumstances (e.g., national security versus local emergency response). Such an approach would entail a subjective judgment on the part of an individual with regard to the classification of the emergency situation; and within types of emergencies, there may be different degrees of severity which may affect the priority to be accorded *vis-a-vis* a different category of emergency. Accordingly, this should be left to the states.

L. Calling Channels: Public Safety Representatives support the designation of two interoperability channels as calling channels, for use as gateways to other channels. Necessarily, this approach requires 24/7 monitoring. Furthermore, encryption or trunking is incompatible with calling channel use.

M. Narrowband Digital Voice Standards for Interoperability Channel: In the first MO&O, the Commission established the ground rules for use of the 700 MHz public safety band as entailing digital emission and a 6.25 kHz bandwidth. There being no currently available commercial equipment which satisfies this standard, and needing a common platform for interoperability in the digital modulation mode, the Commission set a requirement that the digital standard be established through an ANSI-certified process, and it established the National Coordination Committee to develop or recommend standards for equipment to operate in the band.

Considering both (i) the time required to develop standards, obtain ANSI certification and ramp-up production lines, and (ii) the fact that the 700 MHz band frequencies will not be available in many metropolitan areas until 2007, a number of parties requested that the Commission authorize 12.5 kHz analog operations on an interim basis, subject to a specific phase-out schedule tied to the development and availability of 6.25 kHz digital equipment. The rationale underlying this

recommendation was that (i) analog provides a common platform for interoperability without the need for a standardization process, and (ii) analog equipment is relatively inexpensive and can be easily conformed to operate in the 700 MHz band, thereby minimizing the investment of those seeking early access. The Commission rejected this approach in the Second MO&O.⁵

In the Fourth, NPRM the Commission proposes to accept the recommendation of the NCC that 12.5 kHz digital equipment (Project 25/Phase I) be authorized to operate in the band, subject to adoption of a yet-to-be-defined migration path to 6.25 kHz equipment. At that, the Commission appears to be conflicted, recognizing that there are yet-to-be-solved requirements for the 6.25 kHz digital equipment currently under development. Moreover, the migration path from 12.5 kHz to 6.25 kHz operation is undefined, and in itself raises issues of feasibility.

The Commission set laudable objectives in the First Report and Order, i.e. digital modulation, narrowband operation and standardization, which push the envelope of current technology. Pending meeting these goals, the Commission proposes to compromise by allowing 12.5 kHz bandwidth equipment. The danger, as implicitly recognized in the Fourth NPRM, is that once implemented the “interim” generation of equipment will not be displaced, at least in the foreseeable future. This risk arises out of both the challenges in developing the 6.25 kHz bandwidth suite of equipment, as described in the Fourth NPRM, and also in the costs the early users will incur to implement “interim” systems.⁶ Moreover, without a clear path to backward and forward compatibility,⁷ a much more challenging element with regard to forward (i.e. 12.5 to 6.25 kHz) compatibility, the interim standard *de facto* will become the permanent standard, at least regionally, if not nationally, thereby vitiating the 6.25 kHz efficiency standard objective set by the Commission. This is demonstrated in a

⁵ Second Memorandum Opinion and Order at ¶10.

⁶ 4th NPRM at ¶46.

⁷ *Id.* At ¶47.

migration program circulated by APCO, which proposes only backward compatibility and permanent “grandfathering” of 12.5 kHz equipment for interoperability.

When faced with the reality that the NCC would not develop, at least in timely fashion, an equipment standard which would meet the three criteria set for use of the band, and that some compromise in those criteria is necessary pending development of equipment which will satisfy those criteria, the Commission proposes to sacrifice the bandwidth efficiency standard. This choice has other implications, namely the assurance of equipment supply which will be economical to all users, as discussed in §II above.

The Public Safety Representatives respectfully urge the Federal Communication Commission to recognize and address the dual implications of the tentative choice of Project 25/Phase I, namely the sacrifice of the spectrum efficiency objective, at least for the interoperability channels, and the implications with regard to equipment affordability. Should the Commission wish to consider an alternative path, there are two paths available. First is the path suggested by the Public Safety Representatives in the earlier phases of this proceeding, namely allowing interim analog operation at 12.5 kHz, with a reasonable phase-out-date. Mobile and portable analog equipment can be obtained for a cost in the range of \$600-\$800, providing an investment base which is far more feasible to retire, and provides full interoperability and competitive equipment supply. The second alternative is to recognize the TETRA standard. It is understood that TETRA, with its 4-slot TDMA protocol, meets the 6.25 kHz voice channel equivalency standard. TETRA is based upon an ETSI standard, and ETSI should be recognized as fully equivalent to an ANSI certified standard, particularly considering it is supported by the

major mobile equipment manufacturers.⁸

In summary, the choice faced by the Commission is which of the three criteria is more readily expendable: (i) 6.25 kHz bandwidth for interoperability, to be replaced by 12.5 kHz operation for the indefinite future, or (ii) standardization through an ANSI-certified process, to be replaced by ETSI certified standard or (iii) digital operation, to be replaced by analog for a finite time.

If the Commission is convinced that the Project 25/Phase I standard should be utilized as the baseline for interoperability, the Public Safety Representatives note that the record already demonstrates that one of the controversial issue regarding Project 25 involves proprietary intellectual property rights, and the use of unspecified information bits in the signaling protocol.⁹ To the extent the Commission adopts its Project 25/Phase I proposal, the Commission is urged to impose a condition that any such unidentified bits not be used (or be used in a specified, neutral manner) with regard to any 700 MHz public safety band equipment.

N. Channel Efficiency Standards-Narrowband Channels: The Commission requests comments on its declination to adopt the one voice channel per 6.25 kHz of channel bandwidth, regardless of the data rate supplied, standard for operation of 700 MHz public safety equipment. This is an extension of the channel efficiency issue discussed above, and the comments set forth in III.M apply.

O. Narrowband Low Speed Data Transmission Standard and Channel Reservation: Public Safety Representatives accept the proposal to reserve two channels for data. It is noted,

⁸ The Public Safety Representatives note that questions have been raised concerning TETRA equipment performance. The Public Safety Representatives do not have information regarding these criticism, either in support or in refutation; however, considering that TETRA is supported by the major equipment manufacturers and is widely used throughout Europe, the basis for this criticism is difficult to understand. This matter can, and should, be resolved independently, through comparative testing conducted by the Commission's Office of Engineering and Technology. The Public Safety Representatives are certain that the equipment manufacturers would cooperate in such tests.

⁹ See Ex Parte Communication of American Association of State Highway Transportation Officials, et al., WT Docket No. 96-86 (Oct. 8, 1999).

however, that data interchange requires common protocols for both the common air interface as well as for the data communications protocol. The need for data channels for interoperability purposes is unclear. If this is intended for use within a given jurisdiction's system, these needs should be met on the General Use channels

P. Encryption: The Commission solicits comments on whether to permit encryption, other than on the calling channels, and if so whether to require a standard encryption algorithm, and if so the standard to recognize. The Public Safety Representatives respectively submit that encryption, if permitted, should be restricted to a very limited number of channels. Since the interoperability channels (other than those for calling) are intended to be used for operational communications, either certain channels must be free of encryption or a standard encryption methodology must be mandated

Q. for all users. Moreover, the prescription of the federal standard, which the Commission recognizes operates on 12.5 kHz channels, again would condemn the 6.25 kHz bandwidth objective to its early demise.

R. Receiver Standards and Interference: The Public Safety Representatives support the development and implementation of receiver standards. These should be applied, however, not only to 700 MHz public safety operations, but to all services, including the broadcast services. Receivers standards promote good spectrum utilization and good spectrum management, and minimize the need to consider whether to protect inefficiencies in communications receiver design which knowingly are adopted for sole purpose of economizing by a nominal amount on equipment production costs.

S. Federal Use of Interoperability Spectrum: Without question, federal users should have access to the 700 MHz band. Mutual aid response, whether entailing forest fires as recently experienced in the West, or arising out of human error, such as damage to a bridge crossing a waterway, entails coordination between local, state and federal agencies. The opportunity for

interoperability provided by the 700 MHz band allocation should be open to all governmental agencies.

T. Pre-Coordination Database: The Public Safety Representatives support the use of the pre-coordination database, which is being developed by NPSTC, as a tool to be used to “pack” the spectrum based upon population of use. The pre-coordination database is not an engineering tool. Accordingly, the pre-coordination database should be available as a planning guideline; it is unnecessary to prescribe the pre-coordination database through Commission regulation.

With regard to the issues raised in the 4th NPRM concerning (a) coordination between the interoperability and the General Use Channels, and (b) the alternative systems of channel coordination the RPCs could employ in the planning process for coordination between various interoperability entities (e.g., agencies in different states), it is respectfully submitted that these functions properly belong with the frequency coordinators, as recognized by the Commission in the First Report and Order.¹⁰ The frequency coordinators are properly constituted and capable of providing the engineering analyses this type of coordination requires.

WHEREFORE, THE PREMISES CONSIDERED, the American Association of State Highway and Transportation Officials, Forestry Conservation Communications Association, International Association of Fire Chiefs, Inc., International Association of Fish and Wildlife Agencies, International Municipal Signal Association, and National Association of State Foresters respectively urge the Federal Communications Commission to adopt technical and operational rules with regard to the 700 MHz public safety frequency allocation in accordance

¹⁰ First Report and Order at ¶198.

with the foregoing comments and recommendations.

Respectfully Submitted,

AMERICAN ASSOCIATION OF STATE HIGHWAY
AND TRANSPORTATION OFFICIALS

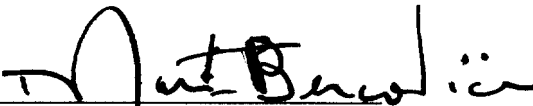
FORESTRY CONSERVATION COMMUNICATIONS
ASSOCIATION

INTERNATIONAL ASSOCIATION OF FIRE CHIEFS, INC.

INTERNATIONAL ASSOCIATION OF FISH AND
WILDLIFE AGENCIES

INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION

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